



A.D. 1855 N° 1194.

SPECIFICATION

OF

ROBERT MACLAREN.

FURNACES, &c.

LONDON:

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1855.



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Furnaces, &c.

(This Invention received Provisional Protection, but notice to proceed with the application for Letters Patent was not given within the time prescribed by the Act.)

PROVISIONAL SPECIFICATION left by Robert Maclaren at the Office of the Commissioners of Patents, with his Petition, on the 26th May 1855.

I, ROBERT MACLAREN, of Glasgow, in the County of Lanark, North Britain, Engineer, do hereby declare the nature of my said Invention of “**IMPROVE-
5 MENTS IN FURNACES, AND IN THE CONSUMPTION OR PREVENTION OF SMOKE,**” to be as follows, that is to say:—

This Invention relates to the intermittent application of heated air in furnaces or fire-places for the consumption or prevention of smoke. Along the front part of the furnace is a metal box or chamber, set transversely, and
10 forming a receiving chamber for the air to be heated prior to its application in the furnace or flue. An adjustable valve is fitted upon the front of this chamber, and by this means the admission of air to it is capable of nice regulation. The fire bars are hollow wrought or cast iron tubes, and they are set with their open outer ends in the inner vertical face of the air chamber,
15 whilst their opposite open ends are supported in the usual manner at or near the bridge. With this arrangement, as the cold air passes into the front receiving chamber, it flows along the hollow bars, & is finally discharged in a heated condition behind the bridge, or at any part most suitable for mingling with the unconsumed gases. The front air valve may either be regulated and set as
20 required by hand, or it may be worked by an automatic apparatus, which shall

Maclaren's Improvements in Furnaces and in the Consumption of Smoke.

keep up a supply of air for the time required by the presence of smoke and unconsumed gases and no longer. According to another modification, the air-heating chamber may be dispensed with, the air being admitted to the open front ends of the hollow fire bars in any convenient manner.

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Printers to the Queen's most Excellent Majesty. 1855.



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